SVE151 Series

SERVICE MANUAL

Ver 2-2012G

Revision History

Model List

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VAIO

- Design and specifications are subject to change without notice.
- 本機の仕様および外観は，改良のため予告なく変更することがありますが，ご了承ください。

PERSONAL COMPUTER

SONY

9-890-899-02

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Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

CAUTION: The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 60°C (140°F) or incinerate. Dispose of used battery promptly. Keep away from children.

CAUTION: Changing the back up battery.

- Overcharging, short circuiting, reverse charging, multilation or incineration of the cells must be avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
- If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.

The components identified by mark 🔒 contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

Service and Inspection Precautions

1. Obey precautionary markings and instructions

Labels and stamps on the cabinet, chassis, and components identify areas requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set's components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the ⚠ mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original design when mounting parts and routing wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure to duplicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270°C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives are easily damaged by vibration. Always handle with care.

ATTETION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉSDANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

Model List

Area	Lineup
US (United States)	SVE15112FXS SVE15113FXS SVE15114FXS SVE15115FXS SVE15116FXS SVE151190X∗ SVE1511DFXB SVE1511DFYS SVE1511RFXB SVE1511RFXW

Area	Lineup
PA (Pan-America)	SVE15111FDB SVE15111FDP SVE15111FDW SVE15113FDB SVE15113FDP SVE15113FDW SVE15117FDB SVE15117FDP SVE15117FDW SVE151190S∗

Area	Lineup
EU (Europe)	SVE1511A1EB SVE1511A1EW SVE1511B1EB SVE1511B1EW SVE1511C1RB SVE1511B1RB SVE1511B1RW SVE1511C1RSI SVE1511C1RW SVE1511C5E∗ SVE1511D1EW SVE1511F1EB SVE1511F1ESI SVE1511F1EW SVE1511G1EB SVE1511G1ESI SVE1511G1EW SVE1511H1ESI SVE1511H1EW SVE1511J1EB SVE1511J1ESI SVE1511J1EW SVE1511K1EB SVE1511K1ESI SVE1511K1EW SVE1511L1EW SVE1511M1EB SVE1511M1ESI SVE1511N1EB SVE1511N1ESI SVE1511N1RB SVE1511N1RSI

Area	Lineup
EU (Europe)	SVE1511N1RW SVE1511P1EW SVE1511Q1EB SVE1511Q1ESI SVE1511R9EB SVE1511R9ESI SVE1511S1ESI SVE1511S1EW SVE1511S9RB SVE1511T1EB SVE1511T1RB SVE1511T1RSI SVE1511T1RW SVE1511V1EW SVE1511V1RB SVE1511V1RSI SVE1511V1RW SVE1511W1EB SVE1511W1ESI SVE1511X1EB SVE1511X1ESI SVE1511X1RB SVE1511X1RSI SVE1511X1RW SVE1511Y1ESI SVE1511Z1EB

Area	Lineup
CN (China)	SVE151100C∗ SVE15115YCB SVE15115YCP SVE15115YCW SVE15116ECB SVE15116ECP SVE15116ECW SVE15118ECB SVE15118ECW

∗: CTO Model

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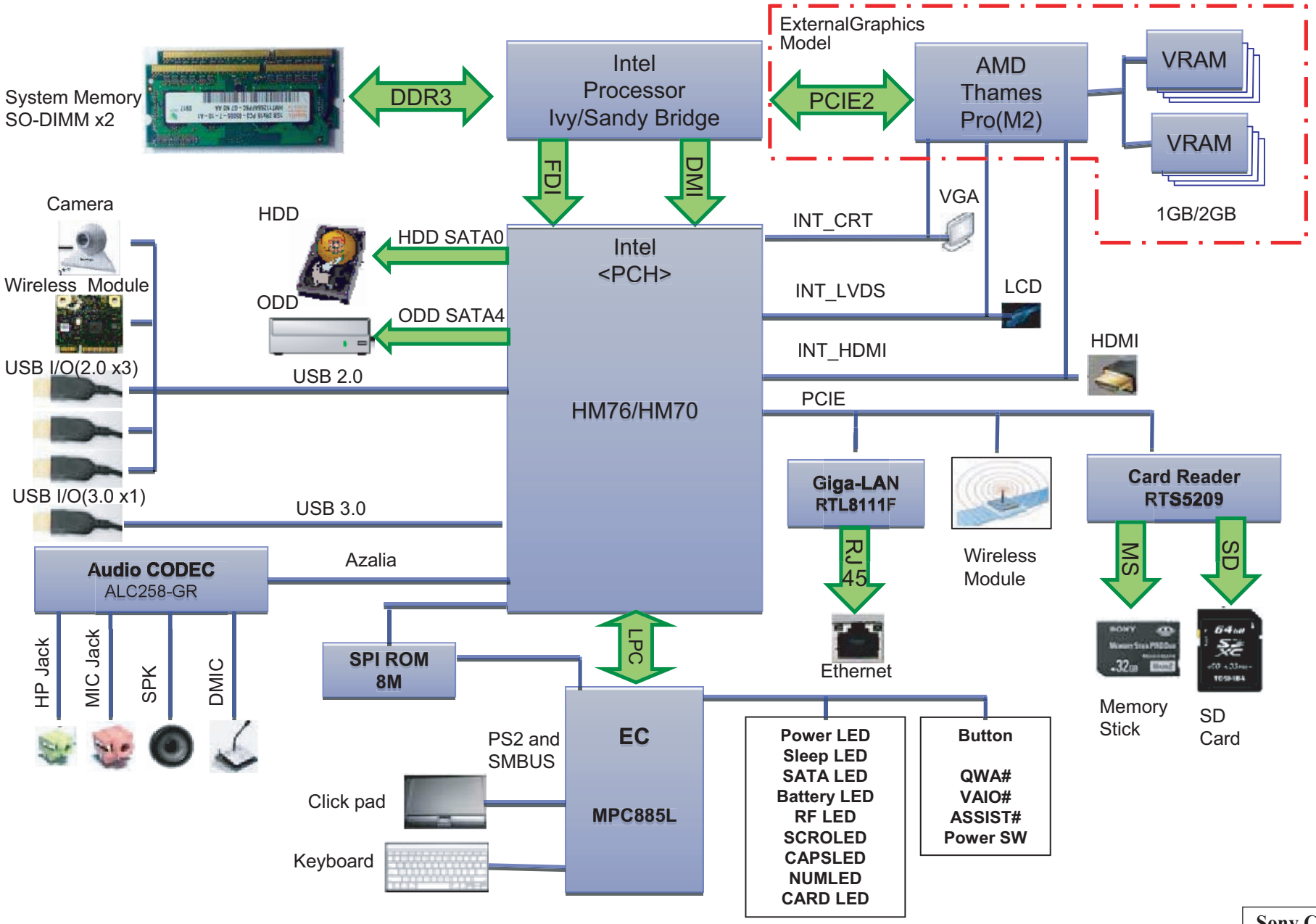
- SPECIFICATIONS are listed on Page 3-1 of "CHAPTER 3. EXPLODED VIEWS AND PARTS LIST".
- History of the changes is shown as the "Revision History" at the end of this data.

- SPECIFICATIONS は、"CHAPTER 3. EXPLODED VIEWS AND PARTS LIST" の 3-1 ページに掲載されています。
- 変更履歴は、“ Revision History ” として、本データ末に記載してあります。

CHAPTER 1.
BLOCK DIAGRAM



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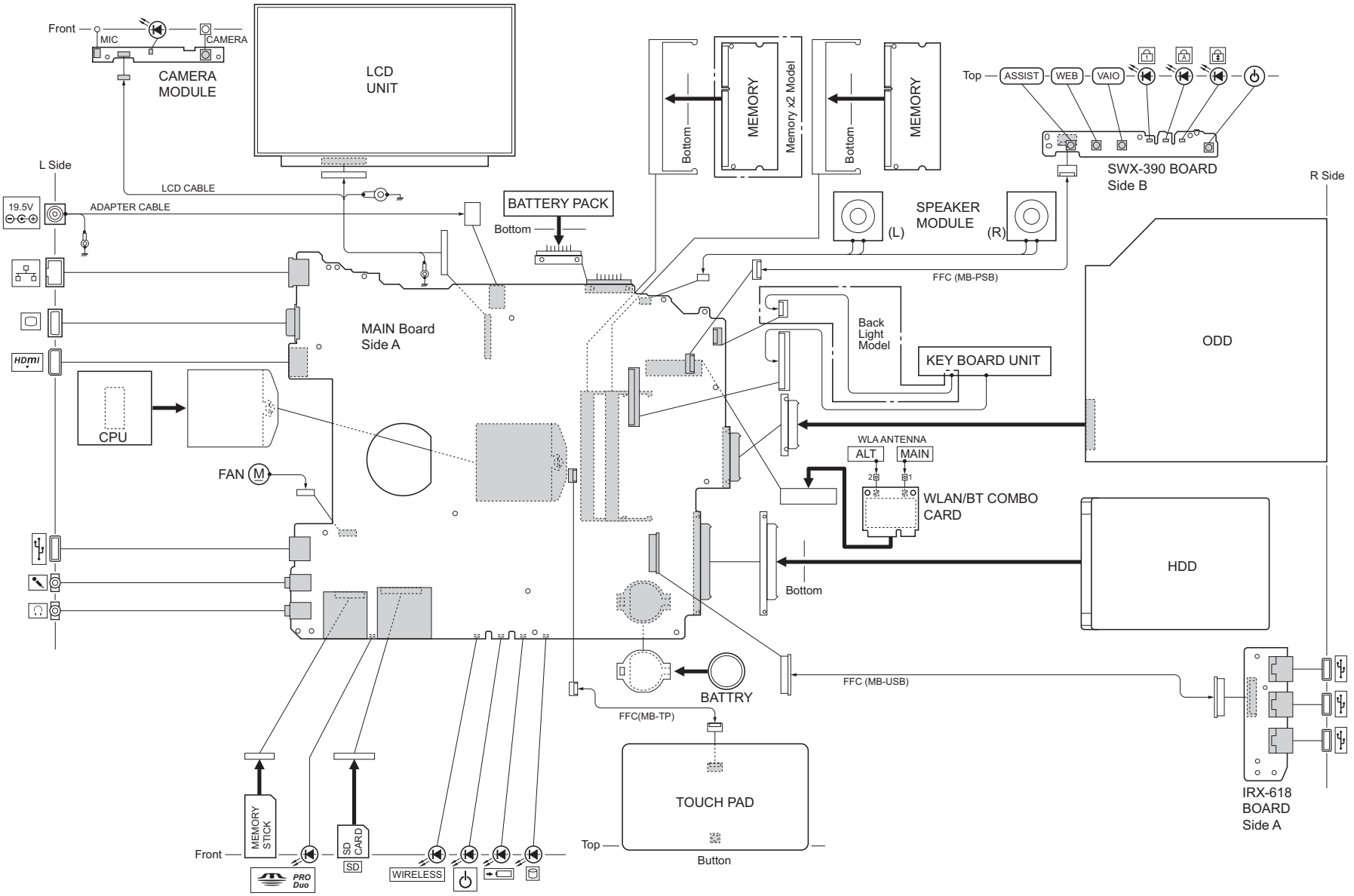
CHAPTER 2.
FRAME HARNESS DIAGRAM



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CHAPTER 3.
EXPLODED VIEWS AND PARTS LIST

- The exploded views and parts list are compiled by blocks.
  The sections are different depending on the model.
  Please refer to list of contents shown on next page.
- 分解図と部品表は , ブロックごとに分かれています。
  機種によってセクションが異なりますので , 詳細は次ページの一覧表を参照してください。

Section	Page
Note	3-2
Main Section	
MS-1	3-3
LCD	
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Accessories	
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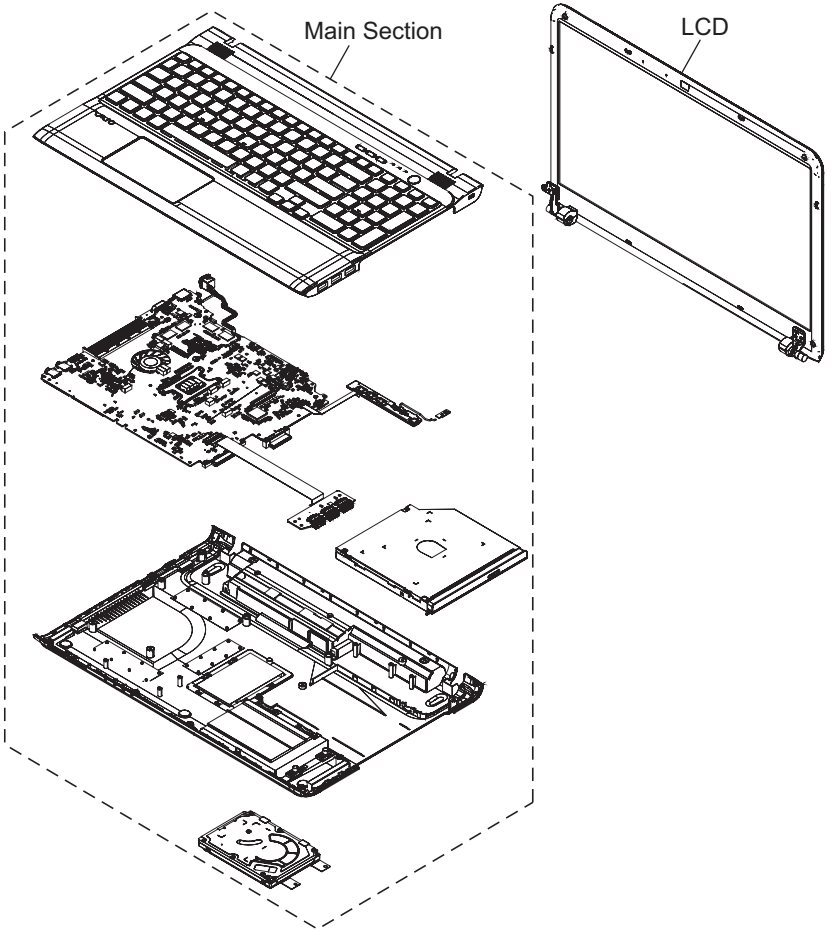

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- Double-click on the paper clip mark in the Spec column to open the specifications list.
- Spec 欄のクリップマークをダブルクリックすると , スペック表が開きます。
- To open the specifications list, Microsoft office Excel or Excel viewer is required.
- スペック表を開くためには , Microsoft Office Excel または Excel ビューワーが必要になります。

		Main Section	LCD	Accessories	Spec
US	E1511DFXB	MS-1	L-1	A-1	
	E15112FXS	MS-1	L-1	A-1	
	E15114FXS	MS-1	L-1	A-1	
	E15116FXS	MS-1	L-1	A-1	
	E15115FXS	MS-1	L-1	A-1	
	E15113FXS	MS-1	L-1	A-1	
	E1511DFYS	MS-1	L-1	A-1	
	E1511RFXB	MS-1	L-1	A-1	
	E1511RFXW	MS-1	L-1	A-1	
	E151190X*	MS-1	L-1	A-1	

		Main Section	LCD	Accessories	Spec
PA	E15111FDB	MS-1	L-1	A-1	
	E15111FDP	MS-1	L-1	A-1	
	E15111FDW	MS-1	L-1	A-1	
	E15113FDB	MS-1	L-1	A-1	
	E15113FDP	MS-1	L-1	A-1	
	E15113FDW	MS-1	L-1	A-1	
	E15117FDB	MS-1	L-1	A-1	
	E15117FDP	MS-1	L-1	A-1	
	E15117FDW	MS-1	L-1	A-1	
	E151190S*	MS-1	L-1	A-1	

		Main Section	LCD	Accessories	Spec
EU	E1511W1EB	MS-1	L-1	A-1	
	E1511W1ESI	MS-1	L-1	A-1	
	E1511Q1EB	MS-1	L-1	A-1	
	E1511Q1ESI	MS-1	L-1	A-1	
	E1511V1EW	MS-1	L-1	A-1	
	E1511P1EW	MS-1	L-1	A-1	
	E1511J1EB	MS-1	L-1	A-1	
	E1511J1ESI	MS-1	L-1	A-1	
	E1511J1EW	MS-1	L-1	A-1	
	E1511F1EB	MS-1	L-1	A-1	
	E1511F1ESI	MS-1	L-1	A-1	
	E1511F1EW	MS-1	L-1	A-1	
	E1511H1ESI	MS-1	L-1	A-1	
	E1511H1EW	MS-1	L-1	A-1	
	E1511D1EW	MS-1	L-1	A-1	
	E1511B1EB	MS-1	L-1	A-1	
	E1511B1EW	MS-1	L-1	A-1	
	E1511A1EB	MS-1	L-1	A-1	
	E1511A1EW	MS-1	L-1	A-1	
	E1511R9EB	MS-1	L-1	A-1	
	E1511R9ESI	MS-1	L-1	A-1	
	E1511X1RB	MS-1	L-1	A-1	
	E1511X1RSI	MS-1	L-1	A-1	
	E1511X1RW	MS-1	L-1	A-1	
	E1511V1RB	MS-1	L-1	A-1	
	E1511V1RSI	MS-1	L-1	A-1	
	E1511V1RW	MS-1	L-1	A-1	
	E1511T1RB	MS-1	L-1	A-1	
	E1511T1RSI	MS-1	L-1	A-1	
	E1511T1RW	MS-1	L-1	A-1	
	E1511N1RB	MS-1	L-1	A-1	
	E1511N1RSI	MS-1	L-1	A-1	
	E1511N1RW	MS-1	L-1	A-1	
	E1511B1RB	MS-1	L-1	A-1	
	E1511B1RW	MS-1	L-1	A-1	
	E1511C1RB	MS-1	L-1	A-1	
	E1511C1RSI	MS-1	L-1	A-1	
	E1511C1RW	MS-1	L-1	A-1	
	E1511S9RB	MS-1	L-1	A-1	
	E1511Z1EB	MS-1	L-1	A-1	
	E1511Y1ESI	MS-1	L-1	A-1	
	E1511X1EB	MS-1	L-1	A-1	
	E1511X1ESI	MS-1	L-1	A-1	
	E1511T1EB	MS-1	L-1	A-1	
	E1511N1EB	MS-1	L-1	A-1	
	E1511N1ESI	MS-1	L-1	A-1	
	E1511S1ESI	MS-1	L-1	A-1	
	E1511S1EW	MS-1	L-1	A-1	
	E1511M1EB	MS-1	L-1	A-1	
	E1511M1ESI	MS-1	L-1	A-1	
	E1511L1EW	MS-1	L-1	A-1	
	E1511K1EB	MS-1	L-1	A-1	
	E1511K1ESI	MS-1	L-1	A-1	
	E1511K1EW	MS-1	L-1	A-1	
	E1511G1EB	MS-1	L-1	A-1	
	E1511G1ESI	MS-1	L-1	A-1	
	E1511G1EW	MS-1	L-1	A-1	
	E1511C5E*	MS-1	L-1	A-1	

		Main Section	LCD	Accessories	Spec
CN	E15118ECB	MS-1	L-1	A-1	
	E15118ECW	MS-1	L-1	A-1	
	E15116ECB	MS-1	L-1	A-1	
	E15116ECP	MS-1	L-1	A-1	
	E15116ECW	MS-1	L-1	A-1	
	E15115YCB	MS-1	L-1	A-1	
	E15115YCP	MS-1	L-1	A-1	
	E15115YCW	MS-1	L-1	A-1	
	E151100C*	MS-1	L-1	A-1	

*: CTO Model

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Note

- Parts List is attached on the upper right portion of each EXPLODED VIEW.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The parts marked " $ " are the Reuse Parts.
- The parts marked with "&" indicates specific parts handling for Japan region. Disregard "&" marking for other than Japan region.
- Color after discription in [ ] shows color variation name of the main body.
- The model that is accompanied asterisk (*) is the CTO model.
- Description of [***MBx2], [***MB], [***GBx2], [***GB]…indicates the following.
  MB/GB: size of the part
  x2: installed quantity at original production
- Be sure to use the parts marked with ●x/□x together with the parts with the same number.
- When replacing the HDD of RAID setting, please exchange to the same HDD that was installed.

Basically, the parts marked "●" should be used for service.
The parts marked "□" in the parts list are substitution parts.
If the part marked "●" is not available, you can order the parts marked "□", but it may not be stocked.

The components identified by mark ! or dotted line with mark ! are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ! sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by mark 🔒 contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

- 部品表は，各分解図の右上部に添付されています。
- * 印の部品は常備在庫しておりません。
- 部品名称の前に$印のついた部品は，Reuse Partsです。
- 部品名称の前に&印のついた部品は，お客様でも交換可能なCustomer Replacable Parts (CRP)であり，販売可能です。
  特に<&>印のついた部品は，使い分けが必要な部品ですので，必ず分解図で対象部品をご確認ください。
- 部品名称の後に[ ]で色が示されている場合，Bodyのカラーバリエーション名称を表わしています。
- 機種名に(*)がつくものはCTOモデルです。
- 部品名の[***MBx2]，[***MB]，[***GBx2]，[***GB] 等々は以下を表わしています。
  MB/GB: この部品の容量
  x2: 出荷時に搭載されている員数
- ●x/□xになっている部品は，同じ数字どうしで必ず一緒に使用してください。
- RAID設定のHDDを交換する際は，搭載されていたHDDと同じものに交換してください。

部品表中"□"のついた部品は，代替部品です。基本は●印の部品を使用してください。
●印の部品が無い場合は，□印の部品をオーダーすることも可能ですが，在庫されていない場合があります。

！印の部品，または！印付きの点線で囲まれた部品は,安全性を維持するために重要な部品です。従って交換時は，必ず指定の部品を使用してください。

🔒印の部品には，秘密情報が含まれています。修理の際は，指示に従った対応を行なってください。

- If there is the Remarks column in the parts list,
  the features of applicable models are indicated in it
  for the parts that are different depending on each model.
  For the abbreviations used in the remarks column, please refer to the <table 1>.

・部品表にRemarks欄がある場合，使い分けが生じる部品について，判別の目安となる対応モデルの特徴を示しています。
記述の省略方法については<table 1>を参照ください。

<table 1>

Full-Name	Short-Name
Bluetooth	BT
Felica	Felica
Wireless WAN	WAN
Wireless LAN	WLAN
1seg Tuner	1seg
Finger Print Sensor	FP
Security Chip	TPM
Flash Memory	SSD
Camera	Camera
Touchscreen Panel	Touchscreen
Transfer Jet	T-Jet
HD Noise Cancelling Headphone	HD NCHP

- If "No-" is described on the left side of the Short-Name, it means 'not equipped'.
  Example: "No-BT" "No-Felica" etc.
- When several descriptions are listed, each description is separated with ", (comma)" or " or". "Comma" means plus.
  Example.1: The parts for the model equipped with BT and Felica and WLAN → BT, Felica, WLAN
  Example.2: The parts for the model equipped with BT or Felica → BT or Felica
- If the color is in the remarks column, it indicates the color of parts itself.

・「無し」を表現する場合には，Short-Nameの左に「No-」とつけます。
例)「No-BT」「No-Felica」など
・注記を複数記載する際には「,(カンマ)」又は「or」で区切ります。「,(カンマ)」はプラスという意味として使います。
例1) BTとFelicaとWLANが搭載されたモデルにつく部品 → BT, Felica, WLAN
例2) BT搭載モデル又はFelica搭載モデルにつく部品 → BT or Felica
・色表記の場合，該当の部品自体の色を示します。

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MS-1. Main Section

Parts List

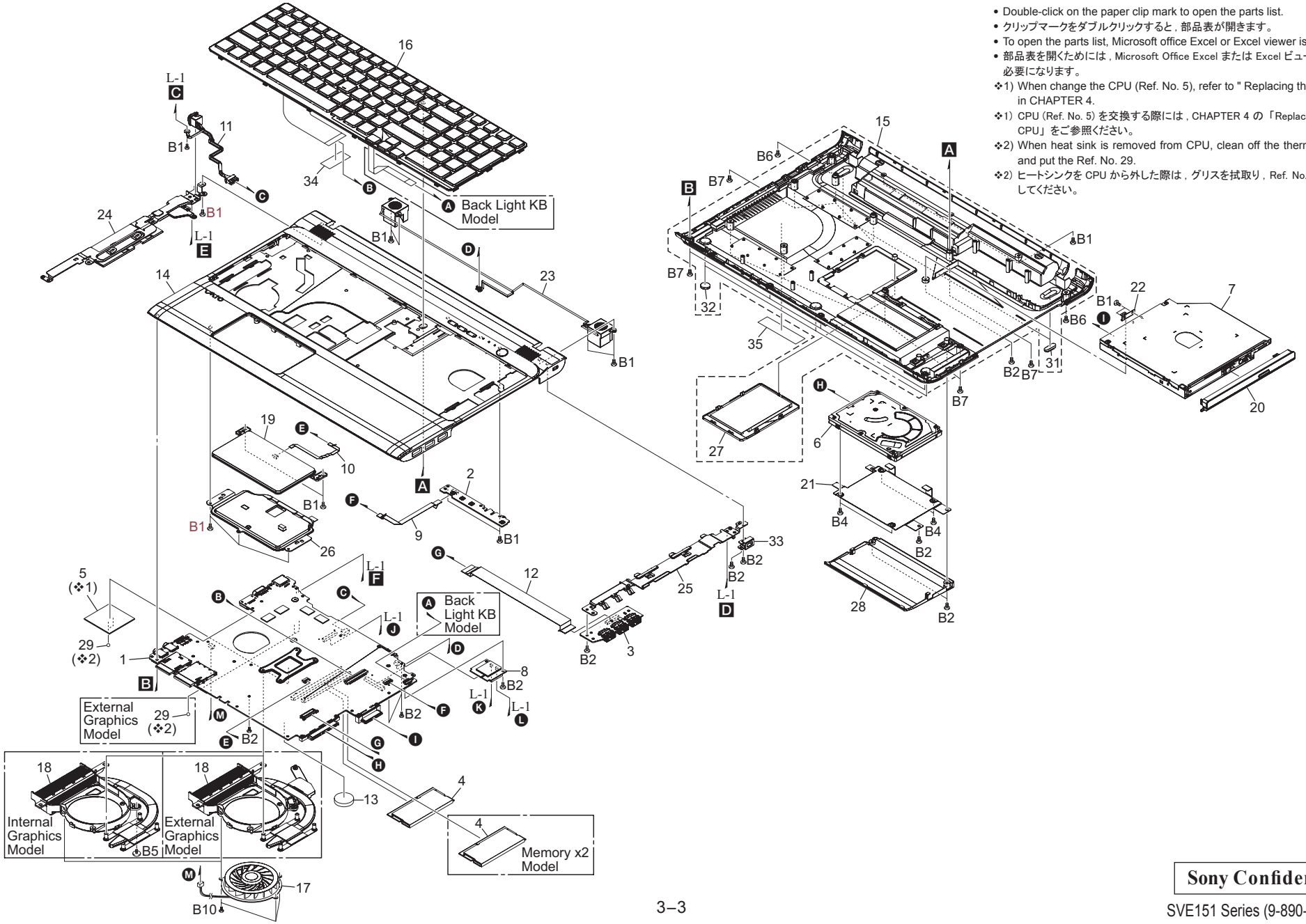
- Double-click on the paper clip mark to open the parts list.
- クリップマークをダブルクリックすると , 部品表が開きます。
- To open the parts list, Microsoft office Excel or Excel viewer is required.
- 部品表を開くためには , Microsoft Office Excel または Excel ビューワーが必要になります。

❖1) When change the CPU (Ref. No. 5), refer to " Replacing the CPU " in CHAPTER 4.

❖1) CPU (Ref. No. 5) を交換する際には , CHAPTER 4 の「Replacing the CPU」をご参照ください。

❖2) When heat sink is removed from CPU, clean off the thermal grease and put the Ref. No. 29.

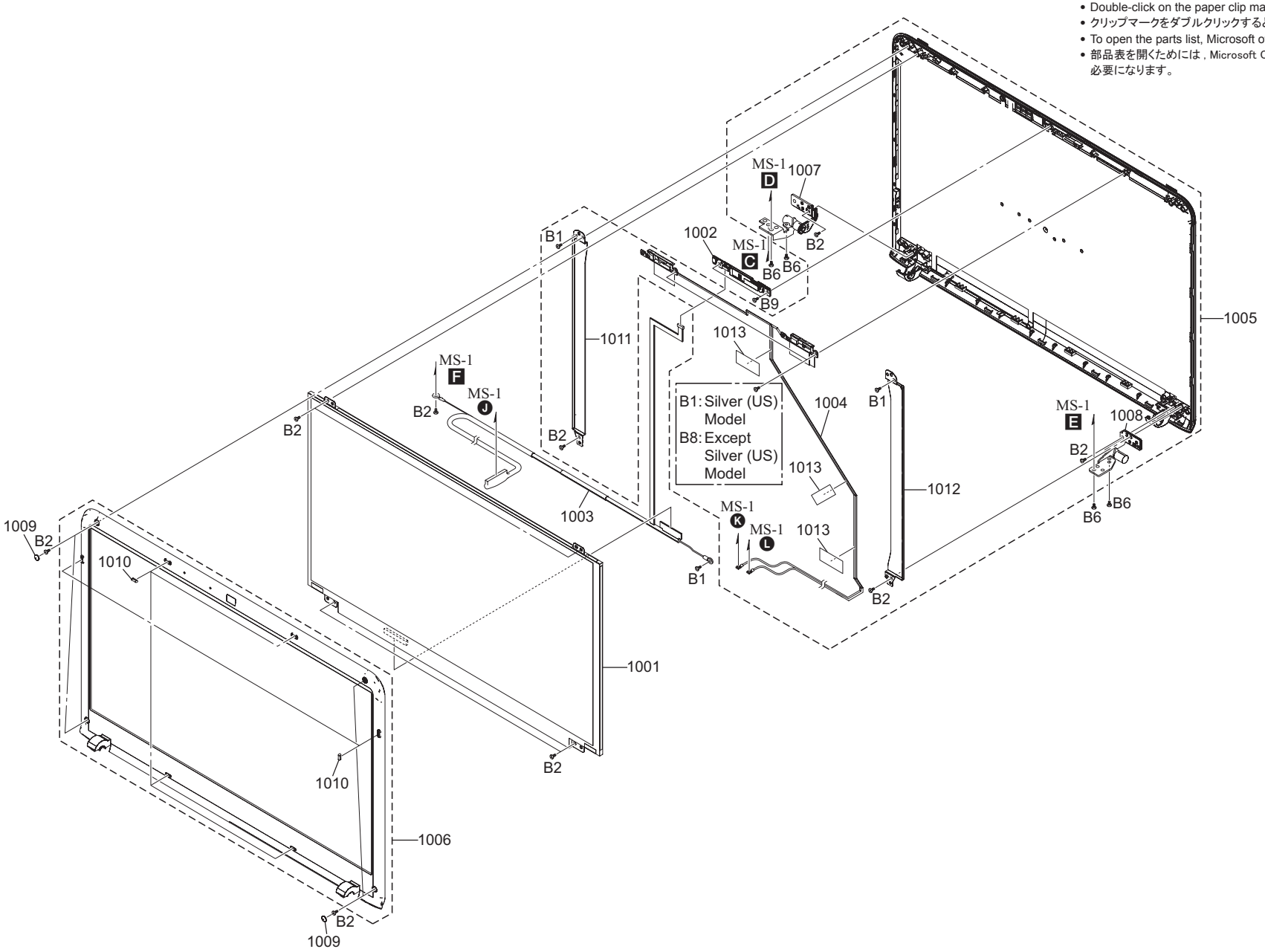
❖2) ヒートシンクを CPU から外した際は , グリスを拭取り , Ref. No. 29 を塗布してください。



L-1. LCD

Parts List

- Double-click on the paper clip mark to open the parts list.
- クリップマークをダブルクリックすると , 部品表が開きます。
- To open the parts list, Microsoft office Excel or Excel viewer is required.
- 部品表を開くためには , Microsoft Office Excel または Excel ビューワーが必要になります。



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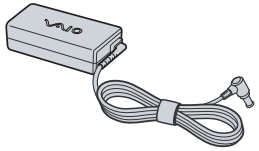
A-1. Accessories

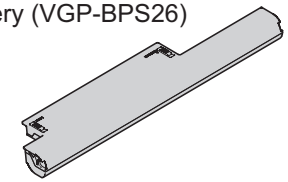
Parts List

- Double-click on the paper clip mark to open the parts list.
- クリップマークをダブルクリックすると , 部品表が開きます。
- To open the parts list, Microsoft office Excel or Excel viewer is required.
- 部品表を開くためには , Microsoft Office Excel または Excel ビューワーが必要になります。

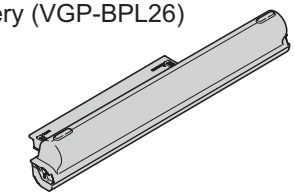
2001
AC Adaptor



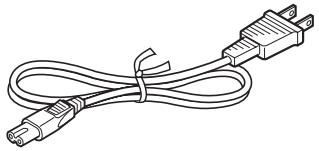
2002
Battery (VGP-BPS26)



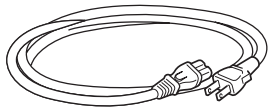
2003
Battery (VGP-BPL26)



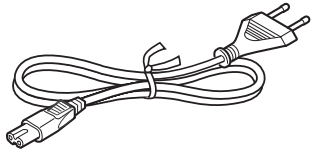
2004
Power Cord Set



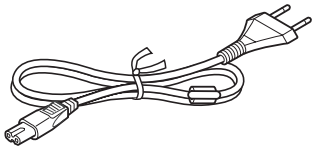
2005
Power Cord Set



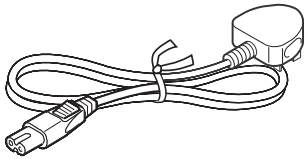
2006
Power Supply Cord Set



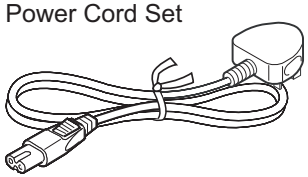
2007
Power Cord



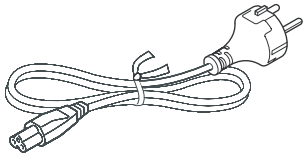
2008
AC Power Cord



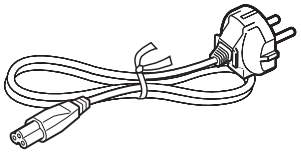
2009
Power Cord Set



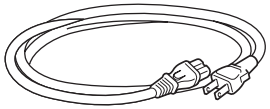
2010
Power-Supply Cord



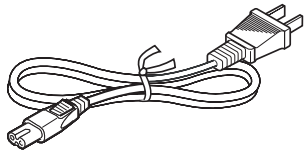
2011
Power-Supply Cord



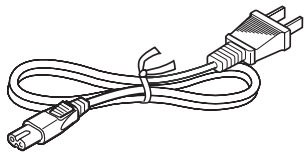
2012
Power Supply Cord Set



2013
Power Cord



2014
Power Cord



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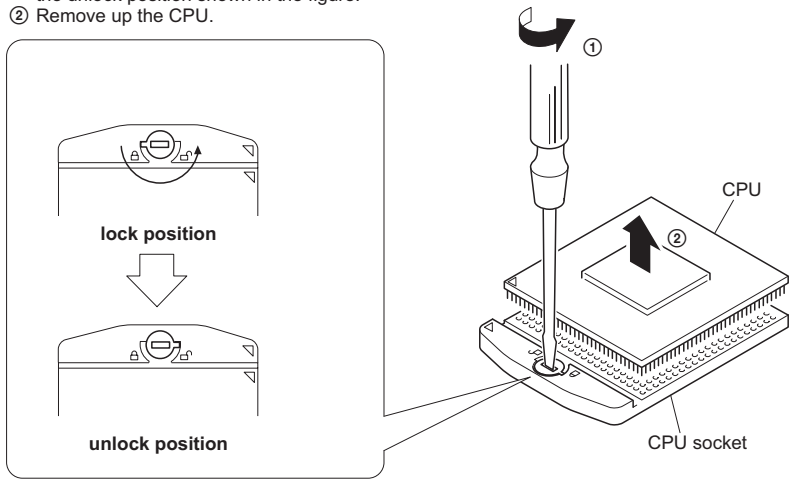
4-1. Replacing the CPU

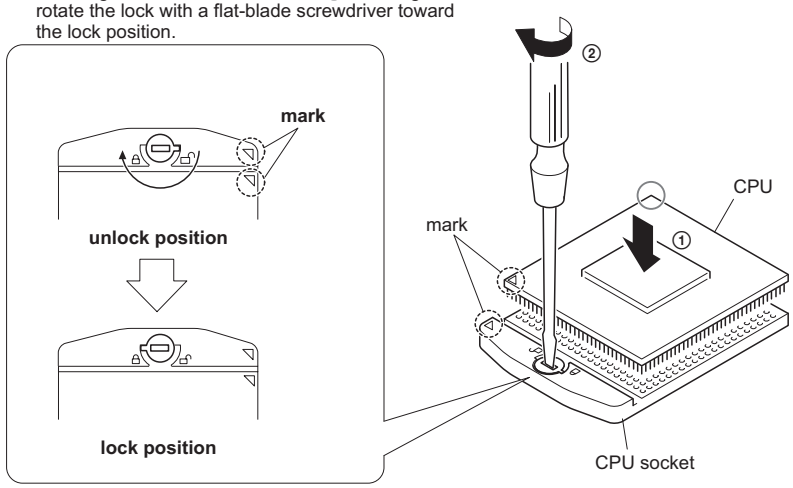
1. How to remove the CPU

① Rotate the lock with a flat-blade screwdriver toward the unlock position shown in the figure.
② Remove up the CPU.



2. How to install the CPU

① Position the mark on the CPU to the mark on the CPU socket and put in all pins to the holes on the CPU socket.
② Pressing two corners marked with ○ in the figure, rotate the lock with a flat-blade screwdriver toward the lock position.



Note: Lock the CPU properly, or operation becomes unstable.

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Revision History

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-01	Ver. 1	2012.05.18	First Edition	-
-02	Ver. 2	2012.07.09	[MA] Page 3, Page 3-1 (a), Page 3-3, Page 3-4, Page 3-5	-
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